EXHIBIT E

DESIGN 30(b)(6) TOPIC s
(TVT PATENTS)

Attachments:

1. Table of Patents and Abstracts;
2. MicroPatent Reports; and
3. Patent Assignments for TVT Classic.

Patent/Publication No.	Application Date	Date of Publicati	Title	Abstract	Held By:	Inventor(s)
US5899909A	2/25/1997	5/4/1999	Surgical instrument for treating female urinary incontinence	A surgical instrument and a method for treating female urinary incontinence. The instrument comprises a shank having a handle at one end thereof, and two curved needle-like elements which are connected at one end thereof each with one end of a tape intended to be implanted into the body. These elements can be connected one at a time with the shank at the other end thereof to form a curved end portion of the shank and are intended to be passed into the body via the vagina, each element being dimensioned to extend from the inside of the vaginal wall over the back of the pubic bone to the outside of the abdominal wall. When practicing the method the tape is passed into the body via the vagina first at one end and then at the other end at one side and the other, respectively, of the urethra to form a loop around the urethra, located between urethra and the vaginal wall. The tape is extended over the pubis and through the abdominal wall and is tightened. Then, the tape ends are cut at the abdominal wall, and the tape is left implanted in the body.	Ethicon, Inc.	Claren, Jan | Ulmsten, Ulf
US6491703B1	7/27/1998	12/10/2002	Surgical instrument for treating female urinary incontinence	The surgical instrument according to the present invention includes a tape that includes a netting enclosed by a thin plastic sheath such that insertion is facilitated while avoiding irritation or damage of body tissue. The surgical instrument further includes a shank having a handle at one end thereof, and a curved needle-like element, which is constructed to be connected with the shank to form a curved portion.	Ethicon, Inc.	Ulmsten, Ulf
US7347813B2	2/2/2005	3/25/2008	Surgical instrument for treating female urinary incontinence	A surgical assembly and method for treating female urinary incontinence. The assembly includes a substantially flat, flexible tape having first and second ends, wherein at least a portion of the tape is adapted to be permanently implanted into a female patient's body as a loop beneath the urethra. The assembly further includes a flexible sheath having a first portion covering a first length of the tape and a second portion covering a second length of the tape. The first and second portions substantially cover the entire length of the implant portion of the tape prior to implantation of the tape and sheath combination into the patient's body. Following implantation into the patient's body, the first and second portions of the sheath are removable from the first and second ends of the tape respectively.	Ethicon, Inc.	Claren, Jan | Ulmsten, Ulf
US7226407B2	7/9/2002	6/5/2007	Surgical instrument and method for treating female urinary incontinence	Described is a surgical instrument and method for treating female urinary stress incontinence. The instrument includes a first curved needle-like element defining in part a curved shaft having a distal end and a proximal, a mesh for implanting into the lower abdomen of a female to provide support to the urethra; a second curved needle element having a proximal end and a distal end, and a coupler for simultaneous attachment to the distal end of the first needle and the distal end of the second needle.	Ethicon, Inc.	Kammerer, Gene W. | Hoepffner, Hans Jochen | Landgrebe, Susanne | Luscombe, Brian

US7204802B2	7/29/2003	4/17/2007	Surgical procedure for the treatment of female urinary incontinence: tension-free inside-out transobturator urethral suspension	A new, quick, simple, efficient, safe, and reproducible surgical technique for the treatment of female urinary incontinence, in which the posterior urethra is suspended using a tape passed through the obturator orifices from inside (underneath the urethra) to outside (thigh folds). A variety of specifically designed surgical instruments are utilized to perform this operative procedure.	Universite de Liege | Centre Hospitalier Universitaire de Liege	De Leval, Jean
US7244259B2	10/31/2003	7/17/2007	Guide for surgical device for the treatment of urinary incontinence	A surgical guide and its use in medical procedures such as to treat female urinary incontinence are provided. The guide preferably includes a stem portion having a proximal end and a distal end and a cross-sectional shape having a recess therein along its length and first and second extension portions extending outwardly from opposites sides of the distal end of the stem portion. Each of said first and second extension portions further include a stationary portion that is fixedly coupled to the stem portion and a movable portion that is movably coupled to the stationary portion. The movable portions are movable relative to the respective stationary portions between a first position wherein the stem portions extends beyond the extension portions by a first distance and a second position wherein the stem portion extends beyond the extension portions by a second distance that is greater than the first distance.	Ethicon, Inc.	Smith, Daniel J. | Gabel, Jonathan B.
US7261723B2	11/12/2003	8/28/2007	Surgical instrument and method for the treatment of urinary incontinence	A surgical assembly is provided including a surgical passer having a wire portion coupled to a handle, with the wire portion having a free distal end, an outer periphery, and at least one recess therein in a distal end region. The assembly further includes a tube element having a proximal end, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end and defined by an inner periphery. The channel has at least one projection projecting outwardly into the channel in a distal end region thereof. The outer periphery of the surgical passer is dimensioned relative to the inner periphery of the channel of the tube element so that the surgical passer is positionable within the tube element, and when so positioned, the at least one tube element projection engages the at least one surgical passer recess to removably couple the surgical passer to the tube element.	Ethicon, Inc.	Smith, Daniel J. | Gabel, Jonathan B. | Decloux, Henri A. M.
US7611454B2	5/27/2004	11/3/2009	Surgical procedure for the treatment of female urinary incontinence: tension-free inside-out transobturator urethral suspension	A new, quick, simple, efficient, safe, and reproducible surgical technique for the treatment of female urinary incontinence, in which the posterior urethra is suspended using a tape passed through the obturator orifices from inside (underneath the urethra) to outside (thigh folds). A variety of specifically designed surgical instruments are utilized to perform this operative procedure.	Universite de Liege | Centre Hospitalier Universitaire de Liege	De Leval, Jean

US7285086B2	7/27/2005	10/23/2007	Minimally invasive medical implant and insertion device and method for using the same	A medical device including an implant and inserter and a method for using the same. One embodiment includes an implant for implantation within a patient, and a first inserter for inserting the implant. The first inserter has a distal end region including a tissue penetrating distal tip, a proximal end region, a capture element located at the distal end region, and an implant holding element having a proximal end and a distal end. The distal end is removably received within the capture element, and the implant holding element further is movably coupled to the first inserter at a first location proximal of the capture element. The implant holding element extends from the first location at which it is movably coupled to the first inserter, and subsequently through the implant before being removably received within the capture element to thereby removably secure the implant to the insertion device.	Ethicon, Inc.	Smith, Daniel J. | Nordmeyer, Michael | Sump, Raimo | Landgrebe, Susanne | Peters, Burkhard
US7297102B2	7/27/2005	11/20/2007	Minimally invasive medical implant and insertion device and method for using the same	A medical implant and method for implantation of the same. One embodiment is an implant for use in the treatment of stress urinary incontinence that includes an implantable, elongated tape having a multiplicity of openings formed through the thickness thereof, the tape having a first end region and a second end region longitudinally opposite the first end region, and first and second bio-compatible fixation elements attached to the first and second end regions of the tape respectively. Each bio-compatible fixation element has a tissue adherence property greater than that of the tape.	Ethicon, Inc.	Smith, Daniel J. | Tracey, Michael | Landgrebe, Susanne
US7601118B2	9/12/2007	10/13/2009	Minimally invasive medical implant and insertion device and method for using the same	A medical implant and method for its implantation. One use is for treatment of stress urinary incontinence and includes an implantable, elongated tape having a multiplicity of openings formed through the thickness thereof, the tape having a first end region and a second end region longitudinally opposite the first end region, and first and second bio-absorbable fixation elements attached to the first and second end regions of the tape respectively. Each bio-absorbable fixation element has a tissue adherence property greater than that of the tape and has a substantially rectangular, planar configuration without physical projections extending outwardly therefrom.	Ethicon, Inc.	Smith, Daniel J. | Tracey, Michael | Landgrebe, Susanne

US7104401B2	11/12/2003	9/12/2006	Packaging assembly for surgical instruments	A packaging assembly for packaging a surgical device including first and second needle assemblies at least a distal portion of which having a curved configuration including an inner package member having first and second recesses sized and shaped for receiving at least a handle portion of the first and second needle assemblies. The recesses extend inwardly from the distal end of the inner package member a distance so that the distal curved portions of the needle assemblies extend beyond the distal end of the inner package. The distal end has a height such that the curved distal portions do not contact a surface on which the inner package member rests. The assembly further includes an outer package member dimensioned to removably receive therein the inner package member and the surgical device. The outer package member has a height sufficient so that when the inner package member and surgical devices are received therein, the outer package element remains substantially clear from contact with the surgical devices. The inner package member and surgical device can be removed from the outer package member and placed on a substantially flat surface in a manner such that the surgical device retains its orientation, and the distal portions of the needle assemblies remain clear of the surface.	Ethicon, Inc.	Smith, Daniel J. | Pergine, Joseph A.
US6394269B1	9/29/2000	5/28/2002	Needle package with point guards	A package for holding a pointed object such as a needle, includes a tray with an internal hollow delimited by a bottom surface and a sidewall, with the internal hollow receiving the pointed object therein. A removable support member extends parallel to the bottom surface over said internal hollow and supports a point guard depending therefrom. The point guard is interposed between the sidewall and a point on the pointed object to be held. Preferably, the point guard has a thickness that is impenetrable to the pointed object during shipping. A cover sheet loosely holds the point guard in position and the package can accommodate needles within a range of dimensions.	Ethicon, Inc.	Rudnick, James J. | Pergine, Joseph | Stairs, Lance

MicroPatent Report

Report Summary:

Name of Session/Report:
Report Created: 2013-04-05 - 17:03 GMT
Number of records selected: 13

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12. US7104401B2 A61B ETHICON INC
PACKAGING ASSEMBLY FOR SURGICAL INSTRUMENTS

13. US6394269B1 A61B ETHICON INC
NEEDLE PACKAGE WITH POINT GUARDS

SURGICAL INSTRUMENT FOR TREATING FEMALE URINARY INCONTINENCE

[71] Applicant: MEDSCAND MEDICAL AB

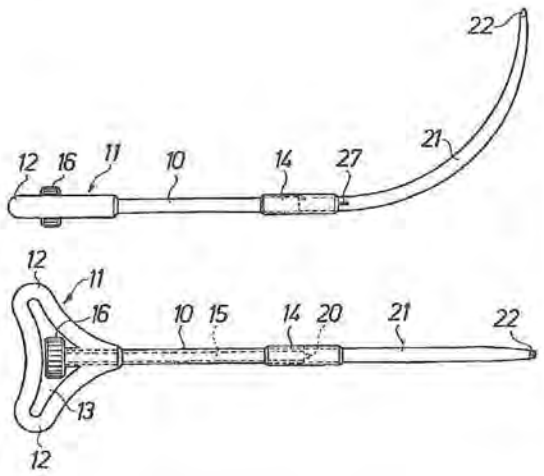
[75] Inventors: Claren, Jan;
Ulmsten, Ulf

[21] Application No.: US1997804680A

[22] Filed: 19970225

[43] Published: 19990504

[30] Priority: SE SE19942872A 19940830 ...



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[57] Abstract:

A surgical instrument and a method for treating female urinary incontinence. The instrument comprises a shank having a handle at one end thereof, and two curved needle-like elements which are connected at one end thereof each with one end of a tape intended to be implanted into the body. These elements can be connected one at a time with the shank at the other end thereof to form a curved end portion of the shank and are intended to be passed into the body via the vagina, each element being dimensioned to extend from the inside of the vaginal wall over the back of the pubic bone to the outside of the abdominal wall. When practicing the method the tape is passed into the body via the vagina first at one end and then at the other end at one side and the other, respectively, of the urethra to form a loop around the urethra, located between urethra and the vaginal wall. The tape is extended over the pubis and through the abdominal wall and is tightened. Then, the tape ends are cut at the abdominal wall, and the tape is left implanted in the body.

[52] US Class: 606119 606118 606185

[51] Int'l Class: A61B001704 A61F000200 A61B001706 A61B001700

[52] ECLA: A61B001706N A61B001704 A61B001704E A61B001706N12 A61F000200B6B4 K61B001700R9 K61B001704E3 K61B001706A3 K61B001706A8 K61B001706A10 K61B001706A11 K61B001706D K61B001706N4 K61B001706S K61F000200L

[57] *Claims:*

We claim:

1. Surgical instrument for treating female urinary incontinence, comprising
a shank,
a handle at one end of said shank,
a tape to be permanently implanted into the body as a loop around urethra,
two curved needle-like elements which are each connected at one end thereof to one end and the other of said tape, and
means on said shank and each of said elements for exchangeable connection of the elements one at a time to the shank at the other end thereof to form at said other end an extension of the shank as a curved end portion thereof dimensioned to extend from the inside surface of the vaginal wall over the back of the pubic bone to the outside of the abdominal wall.

2. Instrument as in claim 1 wherein said means comprises screw coupling means.
3. Instrument as in claim 2 wherein said screw coupling means comprises a shaft rotatably mounted in said shank, an operating knob at one end of the shaft said knob being available at said one end of the shank, threads on the shaft at the other end thereof and on each of said elements for screw interengagement between the shaft and the element to be connected to the shank.
4. Instrument as in claim 1 further comprising a sleeve portion on said shank at said other end thereof to receive therein an end portion of the needle-like element to be connected to the shank.
5. Instrument as in claim 1 wherein the handle comprises two wings projecting diametrically from the shank.
6. Instrument as in claim 5 further comprising mutually cooperating means on said shank and said needle-like elements for positioning the element to be connected to the shank at right angles to the plane of the wings.
7. Instrument as in claim 1 wherein said shank is intended for use several times and consists of a material that can be autoclaved, and wherein said needle-like elements are intended for a single use.
8. Instrument as in claim 1 wherein said tape is attached to said elements by the tape ends being glued to the elements.
9. Instrument as in claim 1 wherein said tape is attached to said elements by the tape ends being welded to the elements.
10. Instrument as in claim 1 wherein said elements are made of plastics material and wherein said tape is attached to said elements by the tape ends being baked into the plastics material of the elements.
11. Instrument as in claim 1 wherein said tape is attached to said elements by the tape ends being mechanically clamped on said elements.
12. Instrument as in claim 1 wherein each of said needle-like elements forms an eye said tape at each end thereof being passed through said eye in one and

the other of said elements, respectively.
13. Instrument as in claim 1 wherein said needle-like elements are curved over substantially a quarter of a circle.
14. Instrument as in claim 1 wherein each of said needle-like elements tapers towards the other, free end thereof.
15. Instrument as in claim 14 wherein each of said needle-like elements is pointed at said other end thereof.
16. Instrument as in claim 14 wherein each of said needle-like elements is blunt at said other end thereof.
17. Instrument as in claim 1 wherein said tape is perforated for growth of fibroblasts thereinto.
18. Instrument as in claim 17 wherein said tape is coated with a fibroblast stimulating material.
19. Instrument as in claim 18 wherein said tape is made of polypropylene.
20. Instrument as in claim 17 wherein said tape comprises a netting.
21. Instrument as in claim 20, further comprising a thin plastic sheath enclosing said tape.
22. Instrument as in claim 21 wherein said sheath is made of polyethylene.
23. Instrument as in claim 21 wherein said sheath has a perforation line at the longitudinal center thereof.
24. Instrument as in claim 21 wherein said sheath comprises two halves having adjacent ends overlapping each other.
25. Instrument as in claim 21 wherein each of said needle-like elements comprises a non-circular end portion fitting into a non-circular socket at said other end of the shank.
26. Instrument as in claim 25 wherein said non-circular end portion of the needle-like element joins the rest of the element by a conical portion tapering towards a shoulder on the needle-like element.
27. Instrument as in claim 26 wherein the netting and the sheath are connected to the needle-like element at said conical portion.
28. Instrument as in claim 27 further comprising a shrink hose covering said netting and said sheath at the site of attachement thereof.
29. Instrument as in claim 28 wherein one end of the shrink hose abuts said shoulder and is substantially flush with the surface of the needle-like element at said shoulder.
30. Instrument as in claim 29 wherein the netting and the sheath project from the shrink hose at the other end thereof.
31. Instrument as in claim 21 wherein a visible marking is provided on the sheath at the longitudinal center thereof.
32. Method for treating female urinary incontinence comprising the steps of passing a tape into the body via the vagina first at one end thereof and

then at the other end thereof at one side and the other, respectively, of urethra to form a loop around urethra, located between urethra and the vaginal wall,

extending said tape over the pubic bone and through the abdominal wall, the ends of the tape being available outside the abdominal wall,

tightening said strap at said ends, and

leaving the tape implanted in the body.

SURGICAL INSTRUMENT FOR TREATING FEMALE URINARY INCONTINENCE

[71] Applicant: ETHICON INC

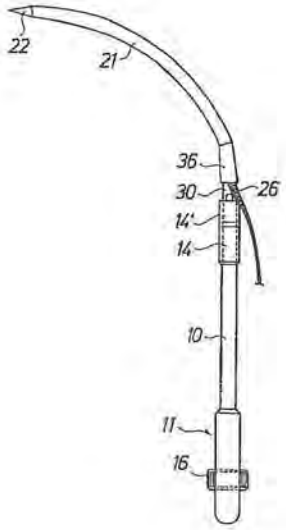
[75] Inventors: Ulmsten, Ulf

[21] Application No.: US199851311A

[22] Filed: 19980727

[43] Published: 20021210

[30] Priority: SE SE19953512A 19951009 ...



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[57] Abstract:

The surgical instrument according to the present invention includes a tape that includes a netting enclosed by a thin plastic sheath such that insertion is facilitated while avoiding irritation or damage of body tissue. The surgical instrument further includes a shank having a handle at one end thereof, and a curved needle-like element, which is constructed to be connected with the shank to form a curved portion.

[52] US Class: 606144 606139

[51] Int'l Class: A61F000200 A61B001704 A61B001742 A61B001706 A61B001700

[52] ECLA: A61B001704E A61B001704 A61B001706N A61B001706N12 A61F000200B6B4 K61B001700R9 K61B001704E3 K61B001706A3 K61F000200B6B4 K61B001706A8 K61B001706A10 K61B001706A11 K61B001706D K61B001706N4 K61B001706S K61F000200L

[57] ***Claims:***

What is claimed is:

1. Surgical instrument for treating female urinary incontinence, comprising a shank having a proximal end and a distal end, a handle at the proximal end of said shank, a tape to be implanted into the body as a loop around urethra, said tape including a netting enclosed by a sheath that can be withdrawn from the tape after the tape is inserted within the body, two curved needles, each having a proximal end and a distal end, wherein the proximal end of each needle is connected to an end of the tape, and means on said shank and each of said needles for exchangeable connection of the proximal end of the needles one at a time to the distal end of the shank to form an extension of the shank as a curved end portion thereof.

2. Surgical instrument as in claim 1, wherein said netting is made of polypropylene.

3. Surgical instrument as in claim 1, wherein said sheath is made of polyethylene.

4. Surgical instrument as in claim 1, wherein said sheath has a perforation line at a longitudinal center thereof.

5. Surgical instrument as in claim 1, wherein the netting and the sheath are interconnected by stitching.

6. Surgical instrument as in claim 1, wherein the netting and the sheath are connected to the needle by gluing to a conical portion at said proximal end of the needle.

7. Surgical instrument as in claim 6, further comprising a shrink hose covering said netting and said sheath at the site of attachment thereof.

8. Surgical instrument as in claim 7, wherein one end of the shrink hose abuts a shoulder distal to said conical portion and has its outside surface substantially at the level of the surface of the needle at said shoulder.

9. Surgical instrument as in claim 1, wherein a visible marking is provided on the sheath at a longitudinal center thereof.

10. Surgical instrument for treating female urinary incontinence, comprising a tape to be implanted into the body as a loop around urethra, said tape enclosed by a sheath that can be withdrawn from the tape after the tape is implanted in the body, and two curved needles, each having a proximal end and a distal end, wherein the proximal end of each needle is connected to an end of the tape.

11. Surgical instrument for treating female urinary incontinence, comprising, in combination, a substantially flat, flexible tape adapted to be implanted into a female patient's body as a supportive loop beneath an urethra; and a flexible sheath having a first portion covering a first length of said tape and removably applied to one end of said tape and a second portion covering a second length of said tape and removably applied to an opposite end of said

tape, said first and second portions cooperating to substantially cover the entire length of said tape prior to implantation of the tape and sheath combination into a patient's body, said sheath being removable from said tape after the implantation of said tape and sheath combination.

12. Surgical instrument as in claim 11, wherein said sheath is made of polyethylene.

13. Surgical instrument as in claim 11, wherein said sheath includes a perforation line intermediate opposite ends of said sheath, said perforation line being oriented transversely relative to a longitudinal axis of said tape.

14. Surgical instrument as in claim 13, wherein said perforation line bifurcates said sheath into two portions, each of which is independently removable from said tape after the implantation of said tape and sheath combination.

15. Surgical instrument as in claim 11, wherein said sheath includes a visible marking at a longitudinal center thereof.

16. Surgical instrument as in claim 11, wherein said tape is in the form of a netting.

17. Surgical instrument as in claim 16, wherein said netting is made of polypropylene.

18. Surgical instrument as in claim 16, wherein said netting and said sheath are interconnected by stitches at an attachment site.

19. Surgical instrument as in claim 18, further comprising a shrink hose covering said netting and said sheath at said attachment site.

20. Surgical instrument as in claim 11, wherein said flexible tape and said flexible sheath move conjointly during implantation and prior to the removal of said sheath from said tape.

21. Surgical instrument for treating female urinary incontinence, comprising a tape to be implanted into a female patient's body as a loop beneath an urethra, said tape being in the form of a netting; and a sheath enclosing said tape and removably applied to said tape, whereby said sheath can be removed from said tape after said tape is implanted in the body, said netting and said sheath being interconnected by stitches at an attachment site.

22. Surgical instrument as in claim 21, further comprising a shrink hose covering said netting and said sheath at said attachment site.

SURGICAL INSTRUMENT FOR TREATING FEMALE URINARY INCONTINENCE

[71] Applicant: ETHICON INC

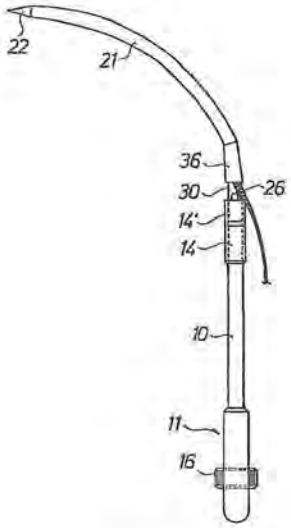
[75] Inventors: Claren, Jan; Ulmsten, Ulf

[21] Application No.: US200549507A

[22] Filed: 20050202

[43] Published: 20080325

[30] Priority: SE SE19942872A 19940830 ...



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[57] Abstract:

A surgical assembly and method for treating female urinary incontinence. The assembly includes a substantially flat, flexible tape having first and second ends, wherein at least a portion of the tape is adapted to be permanently implanted into a female patient's body as a loop beneath the urethra. The assembly further includes a flexible sheath having a first portion covering a first length of the tape and a second portion covering a second length of the tape. The first and second portions substantially cover the entire length of the implant portion of the tape prior to implantation of the tape and sheath combination into the patient's body. Following implantation into the patient's body, the first and second portions of the sheath are removable from the first and second ends of the tape respectively.

[52] US Class: 600030

[51] Int'l Class: A61B001742 A61B001706 A61F000202 A61B001704 A61F000200 A61B001700

[52] ECLA: A61B001704E A61B001704 A61B001706N A61B001706N12 A61F000200B6B4 K61B001700R9 K61B001704E3 K61B001706A3 K61F000200B6B4 K61B001706A8 K61B001706A10 K61B001706A11 K61B001706D K61B001706N4 K61B001706S K61F000200L

[57] ***Claims:***

What is claimed is:

1. A surgical assembly for treating female urinary incontinence, comprising:
a substantially flat, flexible tape having first and second ends, wherein at least a portion of the tape is adapted to be permanently implanted into a female patient's body as a loop beneath an urethra;
a flexible sheath having a first portion covering a first length of the tape and a second portion covering a second length of the tape, the first and second portions substantially covering an entire length of the implant portion of the tape prior to implantation of the tape and sheath combination into the patient's body and being coupled to one another prior to implantation, at a perforation line positioned substantially at a longitudinal center of the sheath,
wherein, following implantation into the patient's body, the first and second portions of the sheath are removable from first and second ends of the tape respectively.

2. A method for treating female urinary incontinence, comprising:
providing a surgical assembly including a substantially flat, flexible tape having first and second ends wherein least a portion of the tape is adapted to be permanently implanted into a female patient's body as a loop beneath an urethra, and a flexible sheath having a first portion covering a first length of the tape and a second portion covering a second length of the tape, wherein the first and second portions substantially cover at least the implant portion of the tape prior to implantation;
implanting the tape and sheath as a loop beneath the urethra;
separating the first and second portions of the sheath;
removing the first portion of the sheath from the patient via the first end of the tape;
removing the second portion of the sheath from the patient via the second end of the tape; and
leaving the tape implanted within the patient.

3. The method according to claim 2, wherein the first and second sheath portions are joined to one another prior to implantation, and the separating step further comprises severing the first and second sheath portions from one another.

4. The method according to claim 3, wherein the severing step further comprises severing the first sheath portion from the second sheath portion along a perforation line in the sheath.

5. The method according to claim 4, wherein the perforation line is substantially at a longitudinal center of the sheath.

SURGICAL INSTRUMENT AND METHOD FOR TREATING FEMALE URINARY INCONTINENCE

[71] Applicant: ETHICON INC

[75] Inventors: Kammerer, Gene W.; Hoepffner, Hans Jochen; Landgrebe, Susanne; . . .

[21] Application No.: US2002191572A

[22] Filed: 20020709

[43] Published: 20070605

[30] Priority: US US1999138231P 19990609 ...

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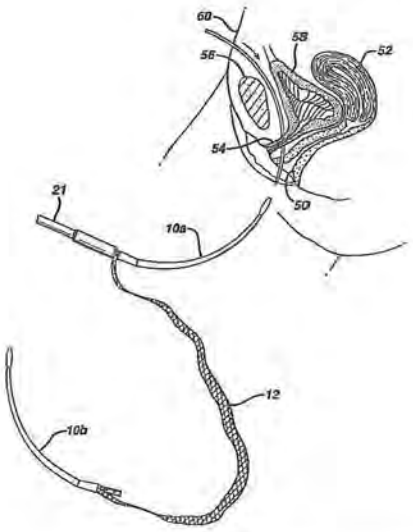


[57] Abstract:

Described is a surgical instrument and method for treating female urinary stress incontinence. The instrument includes a first curved needle-like element defining in part a curved shaft having a distal end and a proximal, a mesh for implanting into the lower abdomen of a female to provide support to the urethra; a second curved needle element having a proximal end and a distal end, and a coupler for simultaneous attachment to the distal end of the first needle and the distal end of the second needle.

[52] US Class: 600030 600037

[51] Int'l Class: A61B001704 A61F000200 A61B0001307 A61B001700 A61B001706 A61B001900 A61B000104

[52] ECLA: A61B0001307 A61B000100E4H3 A61B001704E A61B001706A A61B001706N A61B001706N12 A61F000200B6B4 K61B000104D K61B001700H K61B001700K K61B001700R9 K61B001706A3 K61B001706A9 K61B001706A30 K61B001706A31 K61B001706D K61B001706N3 K61B001706N4 K61B001706N10 K61B001952B4 K61B001952D4 K61F000200B6B4

[57] ***Claims:***

We claim:

1. A surgical instrument assembly for treating female urinary stress incontinence comprising: a mesh for implanting into the lower abdomen of a female to provide support to the urethra; a curved needle element having a distal end and a proximal end and defining in part a curved shaft, the proximal end being coupled to a first end of the mesh; a curved needle guide having a proximal end and a distal end; and a coupling element for coupling the distal end of the needle element to the distal end of the needle guide.

2. The surgical instrument assembly according to claim 1, wherein the coupling element has a first bore therein in a first end and a second bore therein in a second end, wherein the first bore is dimensioned to receive the distal end of the needle element and the second bore is dimensioned to receive the distal end of the needle guide.

3. The surgical instrument assembly according to claim 2, wherein the coupling element is substantially elliptical in shape.

4. The surgical instrument assembly according to claim 2, wherein the coupling element is a tube element having a varying inner diameter.

5. The surgical instrument assembly according to claim 2, wherein the coupling element is a tube element having varying inner and outer diameters.

6. The surgical instrument assembly according to claim 2, wherein the first and second ends of the coupling element are tapered.

7. A surgical instrument assembly for treating female urinary stress incontinence comprising: a mesh for implanting into the lower abdomen of a female to provide support to the urethra; a curved needle element having a distal end and a proximal end and defining in part a curved shaft, the proximal end being coupled to a first end of the mesh; and a curved needle guide having a proximal end and a distal end; wherein the distal end of the needle has a bore therein dimensioned to receive the distal end of the needle guide.

8. A surgical instrument assembly for treating female urinary stress incontinence comprising: a mesh for implanting into the lower abdomen of a female to provide support to the urethra; a curved needle element having a distal end and a proximal end and defining in part a curved shaft, the proximal end being coupled to a first end of the mesh; and a curved needle guide having a proximal end and a distal end, wherein the distal end has a bore therein dimensioned to receive the distal end of the needle element.

9. The surgical instrument assembly according to claim 8, wherein the distal end of the needle element further comprises a protruding element projecting outwardly therefrom, and the needle guide bore is dimensioned to receive therein the protruding element.

10. A surgical instrument assembly for treating female urinary stress

incontinence comprising: a curved needle element having a distal end and a proximal end and defining in part a curved shaft; a mesh for implanting into the lower abdomen of a female to provide support to the urethra; and a connecting element coupled to a first end of the mesh and capable of being detachably coupled to the distal end of the needle element, wherein the connecting element has a first end and a second end, the first end being coupled to the mesh, and the second end further comprises an arm element projecting outwardly therefrom, and wherein the distal end of the needle element has a bore therein dimensioned to receive the arm element to thereby removably couple the mesh to the needle element.

11. The surgical instrument assembly according to claim 10, wherein the distal end of the needle element further comprises a circumferential groove therein, and wherein the connecting element further comprises a flexible loop element coupled thereto, wherein the flexible loop element is capable of engaging the circumferential groove to thereby removably coupled the mesh to the needle element.

12. The surgical instrument assembly according to claim 10, further comprising a second connecting element coupled to a second end of the mesh and capable of being detachably coupled to the distal end of the needle element.

13. A method for treating female urinary stress incontinence comprising: passing a needle guide through a first path through the abdominal wall, along one side of the urethra, and through an anterior wall of the vagina; attaching a first end of a coupling element to a distal end of the needle guide and a second end of the coupling element to a distal end of a first needle element, the first needle element being coupled to a first end of a mesh; retracting the needle guide, the first needle element, and mesh back through the abdominal wall substantially via the first path; uncoupling the needle guide from the coupling element; passing the needle guide through a second path through the abdominal wall, along an opposite side of the urethra, and through the anterior wall of the vagina; attaching a first end of a coupling element to a distal end of the needle guide, and a second end of the coupling element to a distal end of a second needle element, the second needle element being coupled to a second end of the mesh; and retracting the needle guide, second needle element, and mesh back through the abdominal wall substantially via the second path to thereby position the mesh between the urethra and vaginal wall to thereby provide support to the urethra.

14. The method according to claim 13, wherein the coupling element of the first and second attaching step is the same coupling element.

SURGICAL PROCEDURE FOR THE TREATMENT OF FEMALE URINARY INCONTINENCE: TENSION-FREE INSIDE-OUT TRANSOBTURATOR URETHRAL SUSPENSION

[71] Applicant: CHU LIEGE

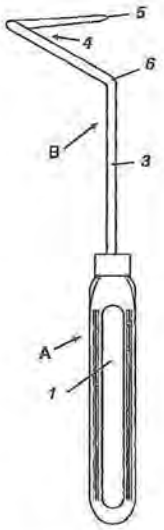
[75] Inventors: De Leval, Jean

[21] Application No.: US2003628251A

[22] Filed: 20030729

[43] Published: 20070417

[30] Priority: US US2002406674P 20020829 ...



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[57] Abstract:

A new, quick, simple, efficient, safe, and reproducible surgical technique for the treatment of female urinary incontinence, in which the posterior urethra is suspended using a tape passed through the obturator orifices from inside (underneath the urethra) to outside (thigh folds). A variety of specifically designed surgical instruments are utilized to perform this operative procedure.

[52] US Class: 600030 606223

[51] Int'l Class: A61B001706 A61F000200 A61B001704 A61B001700

[52] ECLA: A61B001706N12 A61B001704E A61B001706N K61B001700R9 K61B001706N1 K61B001706N2 K61F000200B6B4

[57] ***Claims:***

I claim:

1. A surgical method for treating female urinary incontinence, said method comprising: identifying a surgical exit point on a horizontal line above the urethral plane where a surgical needle will exit at a thigh of a patient, making an incision of the vaginal wall, performing a para-urethral dissection towards the ischio pubic ramus while avoiding a perforation of the vaginal wall, rotating the surgical needle around the ischio pubic ramus, penetrating the previously identified surgical exit point from inside the patient with a tip of the surgical needle, and attaching one of a string and a tube to the surgical needle after the tip of the surgical needle passes through the previously identified exit point.

2. The surgical method as claimed in claim 1, wherein the surgical needle is rotated back towards the sub-urethral vaginal opening after the one of the string and the tube are attached to the surgical needle.

3. The surgical method as claimed in claim 2, where a tape is attached to the one of the string and the tube and the tape is pulled internally of the patient by removal of the one of the string and the tube from the exit point.

4. A surgical needle for use in treating female urinary incontinence, said surgical needle comprising: a handle, a straight section having two ends, one end of said straight section being connected to said handle, and a spiral section having two ends, one end of said spiral section being connected at a junction to the other end of said straight section, the other end of said spiral section being a free end terminating in a tip, the tip of the spiral section being located in a vertical plane located at a horizontal distance of 4 to 8 cm from the junction.

5. A surgical needle for use in treating female urinary incontinence, said surgical needle comprising: a handle, a straight section having two ends, one end of said straight section being connected to said handle, and a spiral section having two ends, one end of said spiral section being connected at a junction to the other end of said straight section. the other end of said spiral section being a free end terminating in a tip, the tip of the spiral section being spaced above the junction by, at the most, 3.5 cm.

6. A surgical needle for use in treating female urinary incontinence, said surgical needle comprising: a handle, a straight section having two ends, one end of said straight section being connected to said handle, and a spiral section having two ends, one end of said spiral section being connected at a junction to the other end of said straight section, the other end of said spiral section being a free end terminating in a tip, the spiral section having a diameter of 2 to 5 mm and a length of 6 to 18 cm.

7. The surgical needle as claimed in claim 6, wherein the tip of the spiral section includes an eyelet.

8. The surgical needle as claimed in claim 6, wherein the tip of the spiral section includes curled segments.

9. A surgical needle for use in treating female urinary incontinence, said surgical needle comprising: a handle, a straight section having two ends, one end of said straight section being connected to said handle, and a spiral section having two ends, one end of said spiral section being connected at a junction to the other end of said straight section, the other end of said spiral section being a free end terminating in a tip, the spiral section further including one linear segment.

10. A surgical needle for use in treating female urinary incontinence, said surgical needle comprising: a handle, a straight section having two ends, one end of said straight section being connected to said handle, and a spiral section having two ends, one end of said spiral section being connected at a junction to the other end of said straight section, the other end of said spiral section being a free end terminating in a tip, the spiral section having a diameter of 2 to 5 mm and a length of 4.5 to 17.6 cm.

11. A surgical needle for use in treating female urinary incontinence, said surgical needle comprising: a handle a straight section having two ends, one end of said straight section being connected to said handle, and a spiral section having two ends, one end of said spiral section being connected at a junction to the other end of said straight section, the other end of said spiral section being a free end terminating in a tip, said junction releasably holding the spiral section.

12. The surgical needle as claimed in claim 11, wherein the spiral section has a diameter of 2 to 5 mm and a length of 6 to 18 cm.

GUIDE FOR SURGICAL DEVICE FOR THE TREATMENT OF URINARY INCONTINENCE

[71] Applicant: ETHICON INC

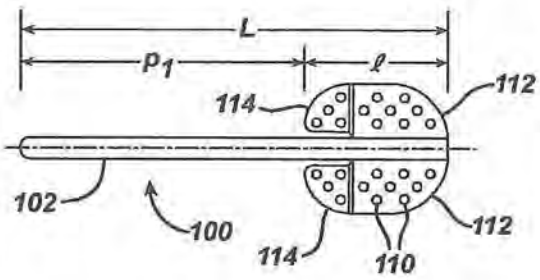
[75] Inventors: Smith, Daniel J.; Gabel, Jonathan B.

[21] Application No.: US2003699045A

[22] Filed: 20031031

[43] Published: 20070717

[30] Priority: US US2003699045A 20031031



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[57] Abstract:

A surgical guide and its use in medical procedures such as to treat female urinary incontinence are provided. The guide preferably includes a stem portion having a proximal end and a distal end and a cross-sectional shape having a recess therein along its length and first and second extension portions extending outwardly from opposites sides of the distal end of the stem portion. Each of said first and second extension portions further include a stationary portion that is fixedly coupled to the stem portion and a movable portion that is movably coupled to the stationary portion. The movable portions are movable relative to the respective stationary portions between a first position wherein the stem portions extends beyond the extension portions by a first distance and a second position wherein the stem portion extends beyond the extension portions by a second distance that is greater than the first distance.

[52] US Class: 606119 600029

[51] Int'l Class: A61F000200 A61B001704 A61B001700 A61B001706

[52] ECLA: A61B001704G A61B001706N12 K61B001700R9 K61B001706A K61B001706N2 K61F000200B6B4

[57] ***Claims:***

What is claimed is:

1. A guide for use in medical procedures, comprising: a stem portion extending substantially along a longitudinal axis between a proximal end and a distal end, and having a cross-sectional shape having a recess therein along its length; and first and second extension portions extending outwardly from opposites sides of the distal end of the stem portion, each of said first and second extension portions further comprising a stationary portion that is fixedly coupled to the stem portion and has a substantially planar configuration extending outwardly from the stem portion and a movable portion that has a substantially planar configuration and is movably coupled to the stationary portion substantially only along a line that is substantially perpendicular to the longitudinal axis of the stem and extends along at least a portion of a proximal edge of the stationary portion, the movable portions being movable relative to the respective stationary portions by pivoting about said substantially perpendicular line between a first position wherein the stem portions extend beyond the extension portions by a first distance and the stationary and movable portions lie in substantially the same plane, and a second position wherein the stem portions extend beyond the extension portions by a second distance that is greater than the first distance.

2. The guide according to claim 1, wherein when the extension portions are in the first position the length of the stem portion that extends beyond the extension portions is approximately 55-65 mm, and wherein when the extension portions are in the second position the length of the stem portion that extends beyond the extension portions is approximately 65-75 mm.

3. The guide according to claim 1, wherein the cross-section of the stem portion is substantially C-shaped.

4. The guide according to claim 1, wherein the extension portion further comprises a plurality of gripping elements.

5. The guide according to claim 1, wherein for each extension portion, the movable portion is bendably coupled to the stationary portion.

6. The guide according to claim 1, wherein for each extension portion, the movable portion is pivotably coupled to the stationary portion.

7. The guide according to claim 1, wherein the first and second extension portions extend outwardly from opposite sides of the stem portion to form an angle therebetween of approximately 135 to 180 degrees.

8. The guide according to claim 1, wherein the first and second extension portions extend outwardly from opposite sides of the stem portion to form an angle therebetween of approximately 45 to 135 degrees.

9. A guide for use in a medical procedure to treat female urinary incontinence, said medical procedure involving the use of one or more surgical needles coupled to a tape to be implanted as support for the patient's urethra, the

guide comprising: a stem portion extending substantially along a longitudinal axis between a proximal end and a distal end and having a cross-section having a recess therein along its longitudinal axis, the recess being shaped to receive therein said one or more surgical needles; and first and second extension portions extending outwardly from opposites sides of the distal end of the stem portion, each of said first and second extension portions further comprising a stationary portion that is fixedly coupled to the stem portion and has a substantially planar configuration extending outwardly from the stem portion, and a movable portion that has a substantially planar configuration and is movably coupled to the stationary portion substantially only along a line that is substantially perpendicular to the longitudinal axis of the stem and extends along at least a portion of a proximal edge of the stationary portion, the movable portions being movable relative to the respective stationary portions by pivoting about said substantially perpendicular line between a first position wherein the stationary and movable portions lie in substantially the same plane and the stem portions extend beyond the extension portions by a first distance, and a second position wherein the stem portions extend beyond the extension portions by a second distance that is greater than the first distance.

10. The guide according to claim 9, wherein in the second position the movable portion is positioned substantially parallel and adjacent to the stationary portion.

11. The guide according to claim 9, wherein the first distance is approximately 55-65 mm and the second distance is approximately 65-75 mm.

12. The guide according to claim 9, wherein the first and second extension portions extend outwardly from opposite sides of the stem portion to form an angle therebetween of approximately 135 to 180 degrees.

13. The guide according to claim 9, wherein the first and second extension portions extend outwardly from opposite sides of the stem portion to form an angle of approximately 45 to 135 degrees.

SURGICAL INSTRUMENT AND METHOD FOR THE TREATMENT OF URINARY INCONTINENCE

[71] Applicant: ETHICON INC

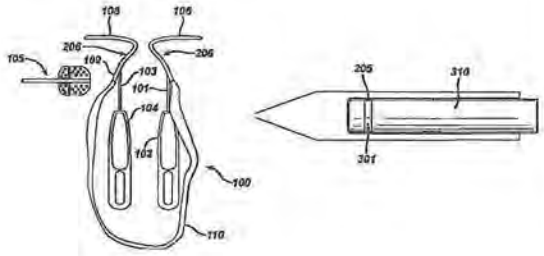
[75] Inventors: Smith, Daniel J.; Gabel, Jonathan B.; Decloux, Henri A. M.

[21] Application No.: US2003706559A

[22] Filed: 20031112

[43] Published: 20070828

[30] Priority: US US2003706559A 20031112



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[57] Abstract:

A surgical assembly is provided including a surgical passer having a wire portion coupled to a handle, with the wire portion having a free distal end, an outer periphery, and at least one recess therein in a distal end region. The assembly further includes a tube element having a proximal end, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end and defined by an inner periphery. The channel has at least one projection projecting outwardly into the channel in a distal end region thereof. The outer periphery of the surgical passer is dimensioned relative to the inner periphery of the channel of the tube element so that the surgical passer is positionable within the tube element, and when so positioned, the at least one tube element projection engages the at least one surgical passer recess to removably couple the surgical passer to the tube element.

[52] US Class: 606139 600030 600037 606119

[51] Int'l Class: A61F000200 A61B001712 A61F000204 A61B001704 A61B001700

[52] ECLA: A61B001704E A61B001706N12 K61B001700R9 K61F000200B6B4

[57] ***Claims:***

What is claimed is:

1. A surgical assembly comprising: a surgical passer having a wire portion coupled to a handle, the wire portion having a free distal end, having an outer periphery, and having at least one recess therein in a distal end region; a tube element having a proximal end, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end and defined by an inner periphery, the channel having at least one projection projecting outwardly into the channel in a distal end region thereof; wherein the outer periphery of the surgical passer is dimensioned relative to the inner periphery of the channel of the tube element so that the surgical passer is positionable within the tube element, and wherein, when so positioned, the at least one tube element projection engages the at least one surgical passer recess to removably couple the surgical passer to the tube element, wherein there is substantially no interference between the surgical passer and tube element other than from the at least one tube element projection.

2. The surgical assembly according to claim 1, wherein the at least one projection is sufficiently smaller than the corresponding recess so as to allow sterilization gas present within the channel to freely pass into a region of the channel distal of the at least one projection.

3. The surgical assembly according to claim 2, wherein the at least one recess has a depth of at least approximately 0.05 mm, and the at least one projection has a height of at least approximately 0.1 mm.

4. The surgical assembly according to claim 3, wherein the at least one recess has a radius of at least approximately 0.1 mm and the at least one projection has a radius of at least approximately 0.1 mm.

5. The surgical assembly according to claim 2, wherein the surgical passer is comprised of stainless steel and the tube element is comprised of a medical grade plastic selected from the group consisting of urethane, polyethylene, and polypropylene.

6. The surgical assembly according to claim 1, wherein a leading edge of the surgical passer has a radius of at least 0.1 mm.

7. The surgical assembly according to claim 1, wherein a leading edge of the surgical passer is chamfered.

8. The surgical assembly according to claim 1, wherein the at least one recess is between 0.5 and 120 mm proximal of the distal end of the surgical passer.

9. The surgical assembly according to claim 1, wherein the at least one recess is a single recess extending around a circumference of the surgical passer, and the at least one projection is a single projection extending around the diameter of the channel.

10. The surgical assembly according to claim 1, wherein the at least one recess is a single recess extending around a circumference of the surgical

passer, and the at least one projection is a plurality of projections spaced apart about the diameter of the channel.

11. The surgical assembly according to claim 1, wherein the wire portion of the surgical passer has a contour, and wherein the tube element is configured to follow said surgical passer contour.

12. The surgical assembly according to claim 11, wherein the contour of the surgical passer is substantially helical.

13. A surgical assembly for use in implanting a tape to treat female urinary incontinence comprising; a surgical passer having a wire portion coupled to a handle, at least a portion of the wire portion having a curved contour, a free distal end, an outer periphery, and having at least one recess therein in a distal end region; a tube element having a proximal end coupled to the tape to be implanted, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end, the channel having an inner periphery and having at least one projection projecting outwardly into the channel in a distal end region thereof, the tube element having a configuration such that it can be removably positioned over the distal end of the surgical passer and having a contour that substantially follows the contour of the surgical passer; wherein when the tube element is removably positioned over the distal end of the surgical passer, the at least one projection on the surgical passer engages the at least one recess in the tube element; and wherein there is substantially no interference between the surgical passer and the tube element other than from the at least one tube element projection.

14. The surgical assembly according to claim 13, wherein the at least one projection is sufficiently smaller than the corresponding recess so as to allow sterilization gas present within the channel to pass freely into a region of the channel distal of the at least one projection.

15. The surgical assembly according to claim 14, wherein the at least one recess has a depth of approximately 0.05 mm to 1.0 mm, and the at least one projection has a height of approximately 0.1 to 0.5 mm.

16. The surgical assembly according to claim 13, wherein the at least one recess is a single recess extending around a circumference of the surgical passer, and the at least one projection is a single projection extending around the diameter of the channel.

17. The surgical assembly according to claim 13, wherein the at least recess is a single recess extending around a circumference of the surgical passer, and the at least one projection is a plurality of projections spaced apart about the diameter of the channel.

18. A surgical assembly for implanting a surgical element within a patient's body, the assembly comprising: a surgical passer having a wire portion coupled to a handle, at least a portion of the wire portion having a curved contour,

having a free distal end, an outer periphery, and having at least one recess therein in a distal end region; a tube element having a proximal end coupled to the tape to be implanted, a tissue penetrating distal end, and a channel extending therein from an opening at the proximal end, the channel having an inner periphery and a means for engaging the at least one recess in the tube element to removably couple the tube element to the surgical passer, the means for engaging being capable of withstanding a removal force of approximately 1 to 10 pounds, but allowing sterilization gas present within the channel to freely pass through to the distal end of the channel.

19. The surgical assembly according to claim 18, wherein the means for engaging is at least one projection projecting outwardly into the tube element channel.

20. The surgical assembly according to claim 18, wherein the surgical passer is comprised of stainless steel and the tube element is comprised of a medical grade plastic selected from the group consisting of urethane, polyethylene, and polypropylene.

SURGICAL PROCEDURE FOR THE TREATMENT OF FEMALE URINARY INCONTINENCE: TENSION-FREE INSIDE-OUT TRANSOBTURATOR URETHRAL SUSPENSION

[71] Applicant: UNIV LIEGE; CT HOSPITALIER UNIVERSITAIRE D

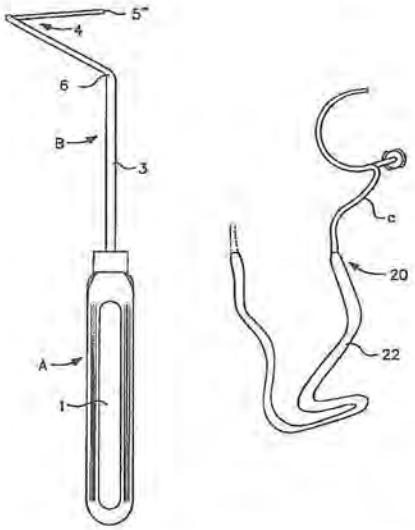
[75] Inventors: De Leval, Jean

[21] Application No.: US2004854140A

[22] Filed: 20040527

[43] Published: 20091103

[30] Priority: US US2002406674P 20020829 ...



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[57] Abstract:

A new, quick, simple, efficient, safe, and reproducible surgical technique for the treatment of female urinary incontinence, in which the posterior urethra is suspended using a tape passed through the obturator orifices from inside (underneath the urethra) to outside (thigh folds). A variety of specifically designed surgical instruments are utilized to perform this operative procedure.

[52] US Class: 600030

[51] Int'l Class: A61B001706 A61F000202 A61B001704 A61B001700

[52] ECLA: A61B001704E A61B001706N A61B001706N12 K61B001700R9 K61B001706N1 K61B001706N2 K61F000200B6B4

[57] ***Claims:***

I claim:

1. A surgical method for treating female urinary incontinence, said method comprising:

identifying a surgical exit point on a horizontal line above the urethral plane where a surgical needle will exit at a thigh of a patient,

making an incision of the vaginal wall,

performing a para-urethral dissection towards the ischio pubic ramus while avoiding a perforation of the vaginal wall,

inserting a leading tip of a spiral section of the surgical needle into a lateral opening of a hollow tube to cover the leading tip of the spiral section of the surgical needle while the surgical needle is completely outside the patient, the lateral opening of the hollow tube being located spaced between a sharp pointed distal end and a proximal end of the hollow tube, the lateral opening being located 10 to 20 cm from the sharp pointed distal end of the hollow tube, and a tape being bound to the hollow tube at the proximal end of the hollow tube,

inserting the spiral section of the needle with the tube over the leading tip of the spiral section into the patient,

rotating the spiral section of the surgical needle around the ischio pubic ramus, and

penetrating the previously identified surgical exit point from inside the patient with the leading tip of the surgical needle and the tube moving from first inside the patient to then outside the patient by a single rotation of the surgical needle.

2. The surgical method as claimed in claim 1, wherein a length of the tape is approximately 12 cm.

MINIMALLY INVASIVE MEDICAL IMPLANT AND INSERTION DEVICE AND METHOD FOR USING THE SAME

[71] Applicant: ETHICON INC

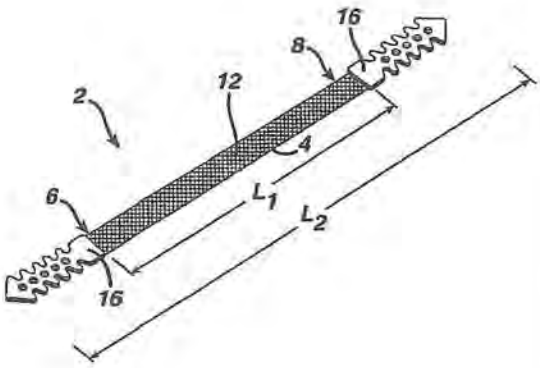
[75] Inventors: Smith, Daniel J.; Nordmeyer, Michael; Sump, Raimo; Landgrebe, Susanne; . . .

[21] Application No.: US2005190295A

[22] Filed: 20050727

[43] Published: 20071023

[30] Priority: US US2004591648P 20040728 ...



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[57] Abstract:

A medical device including an implant and inserter and a method for using the same. One embodiment includes an implant for implantation within a patient, and a first inserter for inserting the implant. The first inserter has a distal end region including a tissue penetrating distal tip, a proximal end region, a capture element located at the distal end region, and an implant holding element having a proximal end and a distal end. The distal end is removably received within the capture element, and the implant holding element further is movably coupled to the first inserter at a first location proximal of the capture element. The implant holding element extends from the first location at which it is movably coupled to the first inserter, and subsequently through the implant before being removably received within the capture element to thereby removably secure the implant to the insertion device.

[52] US Class: 600030 606148

[51] Int'l Class: A61F000200

[52] ECLA: A61B001706N12 A61B001706N A61F000200B6B4 K61B001700R9 K61B001706A30 K61B0017062

[57] ***Claims:***

What is claimed is:

1. A medical implant inserter comprising: an inserter device having a distal end region including a tissue penetrating distal tip, a proximal end region, a capture element and a first pass through element both extending outwardly from the distal end region, the first pass through element being positioned at a location proximal of the capture element, an implant holding element having a proximal end and a distal end, the implant holding element being removably coupled at its distal end to the inserter device by being removably received within the capture element, and being movably coupled to the inserter device at a location proximal of the capture element, wherein a portion of the implant holding element lies substantially adjacent to the inserter device, and a distal end portion of the implant holding element extends to a position wherein it is spaced apart from the inserter device before being removably received within the capture element, and wherein the implant holding element passes through an opening in the first pass through element to thereby at least partially maintain the position of the implant holding element relative to the inserter device.

2. The inserter according to claim 1, wherein the distal end region of the inserter device further comprises a substantially planar portion and the proximal end region further comprises a curved portion.

3. The inserter according to claim 2, further comprising a stiffening element coupled to the substantially planar portion of the inserter device.

4. The inserter according to claim 3, wherein the stiffening element has substantially the same periphery as the substantially planar portion of the inserter device, and wherein the stiffening element has a stiffness greater than that of the inserter device.

5. The inserter according to claim 3, wherein the stiffening element is spaced apart from the substantially planar portion of the inserter device.

6. The inserter according to claim 1, wherein the implant holding element is a wire-like element.

7. The inserter according to claim 1, wherein the implant holding element is movable between a first position wherein the distal end is received within the capture element, and a second position wherein the distal end is not received within the capture element and is positioned proximal of and does not pass through the opening of the first pass through element.

8. The inserter according to claim 1, wherein the inserter device further comprises a second pass through element having at least one opening therethrough, wherein the implant holding element passes through said opening to thereby at least partially maintain the position of the implant holding element relative to the inserter device.

9. A medical device comprising: an implant for implantation within a patient;

a first inserter for inserting the implant, the first inserter having a distal end region including a tissue penetrating distal tip, a proximal end region, a capture element located at the distal end region, and an implant holding element having a proximal end and a distal end, the distal end being removably received within the capture element, and the implant holding element further being movably coupled to the first inserter at a first location proximal of the capture element, wherein the implant holding element extends from the first location at which it is movably coupled to the first inserter, and subsequently through the implant before being removably received within the capture element to thereby removably secure the implant to the insertion device.

10. The device according to claim 9, wherein the implant holding element extends through a first end region of the implant.

11. The device according to claim 9, wherein the implant further comprises a first fixation element at a first end and a second fixation element at a second end and a mesh therebetween having a stiffness less than that of the first and second fixation elements, and wherein the implant holding element extends through the first fixation element.

12. The device according to claim 11, wherein the first and second fixation elements have an outermost width and the distal end region of the first inserter has an outermost width, and wherein the ratio of the outermost width of the first and second fixation elements to the outermost width of the distal end region of the first inserter is approximately 1.4:1.

13. The device according to claim 11, further comprising a second inserter device having a distal end region including a tissue penetrating distal tip, a proximal end region, a capture element located at the distal end region, and an implant holding element having a proximal end and a distal end, the distal end being removably received within the capture element, and the implant holding element further being movably coupled to the second inserter device at a location proximal of the capture element, wherein the implant holding element extends from a position substantially adjacent to the second inserter device, and subsequently through the second fixation element of the implant before being removably received within the capture element to thereby removably secure the second end of the implant to the second insertion device.

14. The device according to claim 9, wherein the insertion device further comprises a stiffening element substantially adjacent to the first fixation element.

15. The device according to claim 14, wherein the stiffening element is substantially adjacent to a substantially planar portion of the insertion device and has a substantially similar periphery as that of the substantially planar portion, and wherein the stiffening element has a stiffness greater

than that of the inserter device.

16. The device according to claim 9, wherein the implant has an aperture therein through which the implant holding device passes.

17. The device according to claim 9, wherein the first insertion device further comprises a first pass through element extending outwardly from the distal end region at a location proximal of the capture element and having at least one opening therethrough, and wherein the implant further has an opening therethrough through which the first pass through element extends, and wherein the implant holding element extends through the implant and through the opening in the first pass through element before being removably received within the capture element.

18. The device according to claim 9, wherein the tissue penetrating distal tip includes a cutting edge.

19. The device according to claim 9, wherein the implant holding element is movable between a first position wherein the distal end is received within the capture element, and a second position wherein the distal end is not received within the capture element and is positioned proximal of and does not pass through the opening of the first pass through element so as to thereby release the implant from the insertion device.

20. A medical device comprising: an implant for implantation within a patient having a first end, a second end, and top and bottom sides; an inserter device for inserting the implant having a distal end region including a tissue penetrating distal tip, a proximal end region, a capture element positioned at the distal end region, and an implant holding element having a proximal end and a distal end that is removably received by the capture element when in a first position, wherein the implant holding element is movably coupled to the inserter device at a location proximal of the capture element, and wherein the implant holding element is movable to a second position wherein the second end is positioned proximal of and not received within the capture element, wherein when the implant holding device is in the first position, at least a first end of the implant is positioned between the implant holding device and the inserter device to thereby secure the implant to the inserter device, and wherein when the implant holding device is in the second position, the implant is not positioned between the implant holding device and the inserter, and is not secured thereto.

21. The device according to claim 20, wherein the implant holding element is a wire-like element.

22. The device according to claim 20, wherein the distal end region of the inserter device further comprises a substantially planar portion and the proximal end region further comprises a curved portion.

23. The device according to claim 22, further comprising a stiffening element

coupled to the substantially planar portion of the inserter device.

24. The device according to claim 23, wherein the stiffening element has substantially the same periphery as the substantially planar portion of the inserter device, and wherein the stiffening element has a stiffness greater than that of the inserter device.

25. The device according to claim 23, wherein the stiffening element is spaced apart from the substantially planar portion of the inserter device.

26. A method for implanting a suburethral implant comprising: providing an implant including an implantable, elongated tape having a multiplicity of openings formed therethrough, the tape having a first end region and a second end region longitudinally opposite the first end region, and first and second bio-compatible fixation elements attached to the first and second end regions respectively; providing first and second insertion devices each including a first inserter having a distal end region including a tissue penetrating distal tip, a proximal end region, a capture element located at the distal end region, and an implant holding element having a proximal end and a distal end, removably coupling the first and second fixation elements of the implant to the first and second inserters respectively by extending the respective implant holding element from a first location wherein it is movably coupled to the insertion device, through the fixation element and to a second location wherein its distal end is removably received within the capture element; inserting the first inserter and attached first fixation element through a vaginal incision and into a patient's tissue on a first side of the urethra; inserting the second inserter and attached second fixation element through the vaginal incision and into the patient's tissue on a second side of the urethra; adjusting the first inserter and attached fixation element and the second inserter and attached fixation element to thereby properly position the implant to provide support to the patient's urethra; uncoupling the first and second inserters from the first and second fixation elements substantially without further manipulation of the implant; and leaving the implant implanted within the body without further adjustment thereof.

MINIMALLY INVASIVE MEDICAL IMPLANT AND INSERTION DEVICE AND METHOD FOR USING THE SAME

[71] Applicant: ETHICON INC

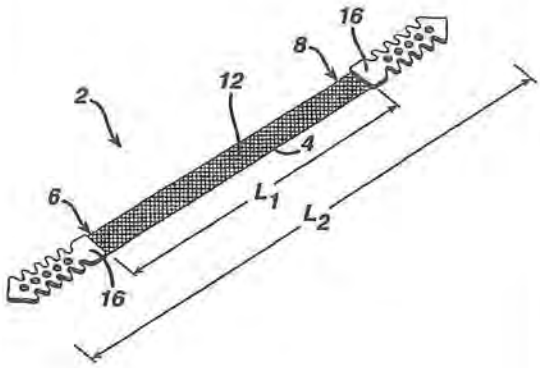
[75] Inventors: Smith, Daniel J.; Tracey, Michael; Landgrebe, Susanne

[21] Application No.: US2005190601A

[22] Filed: 20050727

[43] Published: 20071120

[30] Priority: US US2004591648P 20040728 ...



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[57] Abstract:

A medical implant and method for implantation of the same. One embodiment is an implant for use in the treatment of stress urinary incontinence that includes an implantable, elongated tape having a multiplicity of openings formed through the thickness thereof, the tape having a first end region and a second end region longitudinally opposite the first end region, and first and second bio-compatible fixation elements attached to the first and second end regions of the tape respectively. Each bio-compatible fixation element has a tissue adherence property greater than that of the tape.

[52] US Class: 600030 600037

[51] Int'l Class: A61F000200

[52] ECLA: A61B001706N12 A61B001706N A61F000200B6B4 K61F025000N2 K61B001700R9 K61B001706A30 K61B0017062

[57] ***Claims:***

What is claimed is:

1. An implant for use in the treatment of stress urinary incontinence in a patient, comprising: an implantable, elongated tape having a multiplicity of openings formed through the thickness thereof, the tape having a first end region and a second end region longitudinally opposite the first end region; and first and second bio-compatible fixation elements attached to the first and second end regions of the tape respectively, each bio-compatible fixation element having a tissue adherence property greater than that of the tape, wherein the tape includes a top side and a bottom side, the top side have a first marking thereon and the bottom side having a second marking thereon, the second marking being different from the first marking to thereby distinguish the top side from the bottom side.

2. An implant for use in the treatment of stress urinary incontinence in a patient, comprising: an implantable, elongated tape having a multiplicity of openings formed through the thickness thereof, the tape having a first end region and a second end region longitudinally opposite the first end region; and first and second bio-compatible fixation elements attached to the first and second end regions of the tape respectively, each bio-compatible fixation element having a tissue adherence property greater than that of the tape wherein the tape includes a plurality of spaced apart filament tangles attached thereto.

3. A method of implanting an implant in a patient for the treatment of stress urinary incontinence, the method comprising the steps of: providing an implant including an implantable, elongated tape portion having a multiplicity of openings formed through the thickness thereof, and having a first end region and a second end region longitudinally opposite the first end, and first and second bio-compatible fixation elements attached to the first and second end regions of the tape respectively, each bio-compatible fixation element having a stiffness and/or tissue adherence property greater than that of the tape; making an incision in the vaginal wall of the patient; inserting the first fixation element and attached tape through the incision and into connective tissue attached to the pubic bone to a first side of the patient's uretha; inserting the second fixation element and attached tape through the incision and into connective tissue attached to the pubic bone on the opposite side of the patient's urethra such that the tape forms a loop partially around the urethra to provide support for the urethra; and leaving the implant implanted in the body of the patient, wherein the first and second inserting steps further comprise inserting the first and second fixation elements respectively into connective tissue at the lower edge of the pubic bone.

MINIMALLY INVASIVE MEDICAL IMPLANT AND INSERTION DEVICE AND METHOD FOR USING THE SAME

[71] Applicant: ETHICON INC

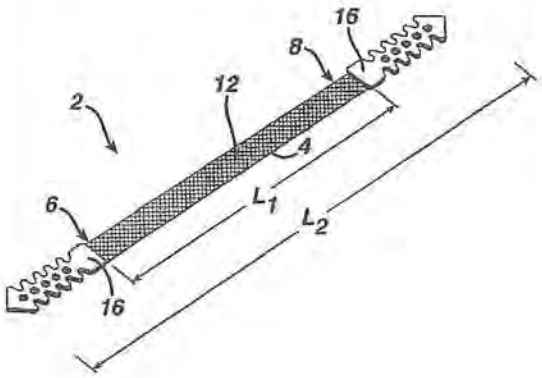
[75] Inventors: Smith, Daniel J.; Tracey, Michael; Landgrebe, Susanne

[21] Application No.: US2007854049A

[22] Filed: 20070912

[43] Published: 20091013

[30] Priority: US US2004591648P 20040728 ...



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[57] Abstract:

A medical implant and method for its implantation. One use is for treatment of stress urinary incontinence and includes an implantable, elongated tape having a multiplicity of openings formed through the thickness thereof, the tape having a first end region and a second end region longitudinally opposite the first end region, and first and second bio-absorbable fixation elements attached to the first and second end regions of the tape respectively. Each bio-absorbable fixation element has a tissue adherence property greater than that of the tape and has a substantially rectangular, planar configuration without physical projections extending outwardly therefrom.

[52] US Class: 600030 600037

[51] Int'l Class: A61F000200

[52] ECLA: A61B001706N12 A61B001706N A61F000200B6B4 K61F025000N2 K61B001700R9 K61B001706A30 K61B0017062

[57] ***Claims:***

What is claimed is:

1. An implant for use in the treatment of stress urinary incontinence in a patient, comprising:

an implantable, elongated tape having a multiplicity of openings formed through the thickness thereof, the tape having a first end region and a second end region longitudinally opposite the first end region; and

first and second bio-absorbable fixation elements substantially surrounding the first and second end regions of the tape respectively, each bio-absorbable fixation element having a tissue adherence property greater than that of the tape, and having a substantially rectangular, planar configuration without physical projections extending outwardly therefrom, wherein each fixation element is comprised of a fleece material fabricated from a composite of a first polymer and a second polymer, the first polymer being prepared from monomers selected from the group of lactide and glycolide, and the second polymer being a poly(p-dioxanone) polymer, rich in poly(p-dioxanone).

2. The implant according to claim 1, wherein the fixation elements have an outermost width substantially equal to a width of the tape.

3. The implant according to claim 1, wherein the implant has a length of approximately 5 to 10 centimeters.

4. The implant according to claim 1, wherein the tape is comprised of a polypropylene mesh or netting.

5. The implant according to claim 1, wherein the first polymer is 10/90 poly(L(−)-lactide-co-glycolide), and the second polymer is poly(p-dioxanone).

6. The implant according to claim 5, wherein the first polymer is 95/5 poly(L(−)-lactide-co-glycolide), and the second polymer is poly(p-dioxanone).

7. The implant according to claim 1, wherein the fixation elements are comprised of a fleece made from polyglactin 910 and poly-p-dioxanone yarn.

8. A method of implanting an implant in a patient for the treatment of stress urinary incontinence, the method comprising the steps of:

providing an implant including an implantable, elongated tape portion having a multiplicity of openings formed through the thickness thereof, and having a first end region and a second end region longitudinally opposite the first end, and first and second bio-compatible fixation elements attached to the first and second end regions of the tape respectively, each bio-compatible fixation element being comprised of a fleece material having a tissue adherence property greater than that of the tape;

making an incision in the vaginal wall of the patient;

inserting the first fixation element and attached tape through the incision

and into an obturator tissue of the patient on one lateral side of the urethra and without exiting the body;

inserting the second fixation element and attached tape through the incision and into an obturator tissue of the patient and on an opposite lateral side of the urethra without exiting the body such that the tape forms a loop partially around the urethra to provide support for the urethra; and

leaving the implant implanted in the body of the patient.

9. An implant for medical procedures, comprising:

a mesh structure having a multiplicity of openings formed through the thickness thereof, the mesh structure having at least a first connection region and a second connection region; and

at least a first bio-absorbable fixation element substantially surrounding the first connection region, the at least one bio-absorbable fixation element having a tissue adherence property greater than that of the mesh, and having a substantially rectangular, planar configuration without physical projections extending outwardly therefrom, wherein the at least one fixation element is comprised of a fleece material fabricated from a composite of a first polymer and a second polymer, the first polymer being prepared from monomers selected from the group of lactide and glycolide, and the second polymer being a poly(p-dioxanone) polymer, rich in poly(p-dioxanone).

10. The implant according to claim 9, wherein the at least one fixation element has an outermost width substantially equal to a width of the tape.

11. The implant according to claim 9, wherein the implant has a length of approximately 5 to 10 centimeters.

12. The implant according to claim 9, wherein the tape is comprised of a polypropylene mesh or netting.

13. The implant according to claim 9, wherein the first polymer is 10/90 poly(L(−)-lactide-co-glycolide), and the second polymer is poly(p-dioxanone).

14. The implant according to claim 13, wherein the first polymer is 95/5 poly(L(−)-lactide-co-glycolide), and the second polymer is poly(p-dioxanone).

15. The implant according to claim 9, wherein the at least one fixation element is comprised of a fleece made from polyglactin 910 and poly-p-dioxanone yarn.

16. The implant according to claim 9, having a second bio-absorbable fixation element substantially surrounding the second connection region, the second bio-absorbable fixation element having a tissue adherence property greater than that of the mesh, and having a substantially rectangular, planar configuration

without physical projections extending outwardly therefrom.

PACKAGING ASSEMBLY FOR SURGICAL INSTRUMENTS

[71] Applicant: ETHICON INC

[75] Inventors: Smith, Daniel J.; Pergine, Joseph A.

[21] Application No.: US2003706734A

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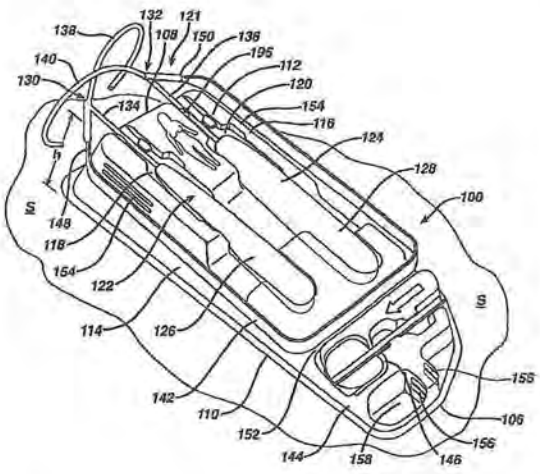

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[57] Abstract:

A packaging assembly for packaging a surgical device including first and second needle assemblies at least a distal portion of which having a curved configuration including an inner package member having first and second recesses sized and shaped for receiving at least a handle portion of the first and second needle assemblies. The recesses extend inwardly from the distal end of the inner package member a distance so that the distal curved portions of the needle assemblies extend beyond the distal end of the inner package. The distal end has a height such that the curved distal portions do not contact a surface on which the inner package member rests. The assembly further includes an outer package member dimensioned to removably receive therein the inner package member and the surgical device. The outer package member has a height sufficient so that when the inner package member and surgical devices are received therein, the outer package element remains substantially clear from contact with the surgical devices. The inner package member and surgical device can be removed from the outer package member and placed on a substantially flat surface in a manner such that the surgical device retains its orientation, and the distal portions of the needle assemblies remain clear of the surface.

[52] US Class: 206366 206366 206438 2064595 600029

[51] Int'l Class: A61B001704 A61M002500 A61B001902 A61F000200

[52] ECLA: A61B001902P A61B001902P6 K61B001902C6 K61B001902H K61B001902P22 K61F000200B6B4 K61F000200P

[57] ***Claims:***

What is claimed is:

1. A packaging assembly for packaging a surgical device including first and second needle assemblies at least a distal portion of which having a curved configuration, comprising: an inner package member having a proximal end, a distal end, an upper side a lower side, and first and second recesses therein sized and shaped for receiving therein at least a handle portion of said first and second needle assemblies, said first and second recesses extending inwardly from said distal end along the upper side a distance such that when the first and second needle assemblies are received therein, the distal curved portion thereof extends beyond the distal end of the inner package, and the distal end having a height such that when the first and second needle assemblies are received therein, the curved distal portions thereof do not contact a surface on which the lower side of the inner package member rests; an outer package member having a proximal end, a distal end and a lower inner side, and dimensioned to removably receive therein the inner package member and the surgical device so that the lower side of the inner package member rests on the lower inner side of the outer package member, and having a height sufficient so that when the inner package member and surgical devices are received therein, the outer package element remains substantially clear from contact with the surgical devices; wherein the inner package member and surgical device can be removed from the outer package member and placed so that the lower side of the inner package member rests on a substantially flat surface, and when so removed the surgical device retains its orientation, and the distal portions of the needle assemblies remain clear of said surface.

2. The package assembly according to claim 1, wherein the surgical device further includes a guide member, and the inner package member further comprises a third recess therein dimensioned to removably receive therein the guide member.

3. The package assembly according to claim 1, wherein the first recess is positioned on a right side of said inner package member and wherein the first needle assembly is designed for use on a patient's right side, and wherein the second recess is positioned on a left side of said inner package member and wherein the second needle assembly is designed for use on a patient's left side.

4. The package assembly according to claim 3, wherein the inner package member further comprises an illustration indicating which needle assembly is for use on which side of the patient's body.

5. The package assembly according to claim 1, wherein the height of the inner package member increases from the proximal end to the distal end.

6. The package assembly according to claim 1, wherein the surgical device further comprises a mesh to be implanted having a first end coupled to the

first needle assembly and a second end coupled to the second needle assembly, wherein the inner package member further comprises a groove extending laterally across the inner package member at a location proximal of the first and second recesses, the groove being dimensioned to receive therein a portion of the mesh such that when the surgical device is removably received within the inner package member, the mesh extends from the first needle assembly, along a first side of the package assembly, within the groove, along a second side of the package assembly, and to the second needle assembly to thereby retain its orientation.

7. The package assembly according to claim 1, wherein the handle portions of the first and second needle assemblies are press fit within the first and second recesses.

8. The package assembly according to claim 1, wherein the outer package member has an open upper side.

9. The package assembly according to claim 8, wherein the open upper side is sealable with film, the film being removable to thereby expose the inner package member and surgical device.

10. A combination surgical assembly and packaging assembly comprising: a surgical assembly for use in placing a urethral sling to treat urinary incontinence, the surgical assembly including a first needle assembly for passing a first end of a sling through a patient's body on a first side of the patient's urethra, and a second needle assembly for passing a second end of the sling through the patients body on a second side of the patient's urethra, the first and second needle assemblies including a handle portion and an insertion assembly extending therefrom to a distal end, at least a distal portion of the insertion assembly having a curved configuration, and said sling having the first end coupled to the first needle assembly and the second end coupled to the second needle assembly, a packaging assembly including an inner package member removably receivable within an outer package member, the inner package member having a proximal end, a distal end, and having first and second recesses therein extending inwardly from the distal end, the first and second recesses being dimensioned to removably receive therein at least a portion of the first and second needle assemblies, and having a length such that when the first and second needle assemblies are received therein, the curved distal portion thereof extends outwardly from the distal end of the inner package member, the inner package member further having a height at the distal end such that the curved distal portions of the first and second needle assemblies do not contact a surface on which the inner package member may rest, the outer package member dimensioned to removably receive therein the inner package and surgical assembly such that the surgical assembly is clear of contact with the outer package member.

11. The combination according to claim 10, wherein the surgical assembly further comprises a guide member, and the inner package member further comprises a third recess therein dimensioned to removably receive therein the guide member, the guide member recess being positioned laterally across the inner package member at a location proximal of the first and second recesses.
12. The combination according to claim 10, wherein the inner package member further comprises one or more finger grips for grasping to remove the inner package member from the outer package member.
13. The combination according to claim 10, wherein the height of the inner package member increases from the proximal end to the distal end.
14. The package assembly according to claim 10, wherein the inner package member further comprises a groove extending laterally across the inner package member at a location proximal of the first and second recesses, the groove being dimensioned to receive therein a portion of the sling such that when the surgical assembly is removably received within the inner package member, the sling extends from the first needle assembly, along a first side of the package assembly, within the groove, along a second side of the package assembly, and to the second needle assembly to thereby retain its orientation.
15. A package assembly for removably receiving therein a surgical assembly, the package assembly comprising: an inner package member removably receivable within an outer package member, the inner package member having first and second recesses therein extending inwardly from a distal end thereof, the first and second recesses being dimensioned to removably receive therein at least a portion of first and second surgical instruments designed specifically for use on first and second sides of a patient's body respectively, the first and second surgical instruments having a curved portion at a distal end that, when the first and second instruments are removably received within the first and second recesses, extends outwardly from the distal end of the inner package member, the inner package member having a height that increases from the proximal end to the distal end, said height being sufficient at said distal end such that when the inner package member is removed from the outer package member and placed on a substantially flat surface, the curved portions of the surgical instruments do not contact said surface.
16. The combination according to claim 15, wherein the surgical assembly further comprises a guide member, and the inner package member further comprises a third recess therein dimensioned to removably receive therein the guide member.
17. The package assembly according to claim 15, wherein the surgical assembly further includes a mesh to be implanted, a first end of which is coupled to the first surgical instrument and a second end of which is coupled to the second surgical instrument, and wherein the inner package member further

comprises a groove extending laterally across the inner package member at a location proximal of the first and second recesses, the groove being dimensioned to receive therein a portion of the mesh such that when the surgical assembly is removably received within the inner package member, the mesh extends from the first surgical instrument, along a first side of the inner package member, within the groove, along a second side of the inner package member, and to the second surgical instrument to thereby retain its orientation.

NEEDLE PACKAGE WITH POINT GUARDS

[71] Applicant: ETHICON INC

[75] Inventors: Rudnick, James J.; Pergine, Joseph; Stairs, Lance

[21] Application No.: US2000676861A

[22] Filed: 20000929

[43] Published: 20020528

[30] Priority: US US2000676861A 20000929

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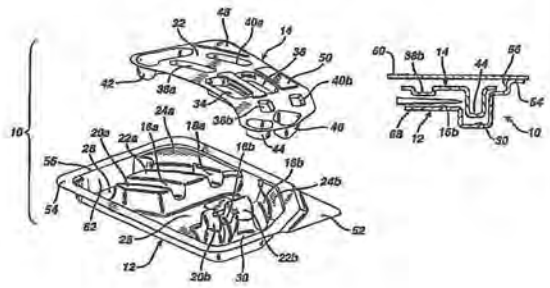

[57] Abstract:

A package for holding a pointed object such as a needle, includes a tray with an internal hollow delimited by a bottom surface and a sidewall, with the internal hollow receiving the pointed object therein. A removable support member extends parallel to the bottom surface over said internal hollow and supports a point guard depending therefrom. The point guard is interposed between the sidewall and a point on the pointed object to be held. Preferably, the point guard has a thickness that is impenetrable to the pointed object during shipping. A cover sheet loosely holds the point guard in position and the package can accommodate needles within a range of dimensions.

[52] US Class: 206380 2060633

[51] Int'l Class: A61B001706

[52] ECLA: A61B001706P4 K61B001706P7

[57] ***Claims:***

We claim:

1. A package for holding a pointed object, comprising: (a) a tray portion having an internal hollow delimited by a bottom surface and a sidewall, said internal hollow receiving the pointed object therein, said bottom surface having an object supporting portion that is elevated above a remainder thereof, the pointed object being supported upon said object supporting portion, said object supporting portion terminating at one end thereof in a descending wall that traverses from a level of said object supporting portion to a level of said remainder of said bottom surface, the point of the pointed object being positionable proximate said descending wall; (b) a removable cover extending substantially parallel to said bottom surface over said internal hollow; and (c) a point guard depending from said cover towards said tray proximate said sidewall, said point guard interposed between said sidewall and a point on the pointed object to be held, said point guard extending parallel to said descending wall towards said remainder of said bottom surface to a level below said object supporting surface.

2. A package for holding a pointed object, comprising: (a) a tray portion having an internal hollow delimited by a bottom surface and a sidewall, said internal hollow receiving the pointed object therein, said bottom surface having an object supporting portion elevated above a remainder thereof, the pointed object being supported upon said object supporting portion, said object supporting portion terminating at one end thereof in a descending wall that traverses from a level of said object supporting portion to a level of said remainder of said bottom surface, the point of the pointed object being positionable proximate said descending wall; (b) a removable cover extending substantially parallel to said bottom surface over said internal hollow; (c) a point guard depending from said cover towards said tray proximate said sidewall, said point guard interposed between said sidewall and a point on the pointed object to be held, said point guard extending parallel to said descending wall towards said remainder of said bottom surface to a level below said object supporting surface; and (d) a cover sheet extending over said tray portion covering said internal hollow, said cover and said pointed object, said cover sheet retaining said cover in a position wherein said point guard is interposed between said sidewall and the point of the pointed object.

3. The package of claim 2, wherein said descending wall, said remainder of said bottom surface and said sidewall define a first depressed area in said tray portion disposed proximate a first end of said object support surface and said point guard has a complementary shape to said first depressed area, such that said point guard inserts within said first depressed area.

4. The package of claim 3, wherein said point guard has a first wall section disposed proximate said object support surface and a second wall section

disposed proximate said sidewall, said first wall section and said second wall section having a spacing therebetween, such that the point of the pointed object would penetrate said first wall section and said second wall section before penetrating said sidewall.

5. The package of claim 4, wherein said cover has a generally planar portion from which said point guard depends, said planar portion and said point guard covering said hollow.

6. The package of claim 5, further comprising a plurality of point guards, the pointed object having at least two points, a first point guard of said plurality being positioned proximate a first point of the pointed object and a second point guard of said plurality being positioned proximate a second point of the pointed object.

7. The package of claim 6, wherein said tray has a plurality of depressed areas, said first depressed area accommodating said first point guard and a second depressed area accommodating the second point guard.

8. The package of claim 7, further comprising a third depressed area located toward a center of said package, said third depressed area facilitating grasping the pointed object held within said package, said object support surface holding the object above a bottom surface of said third depressed area.

9. The package of claim 6, wherein said object support surface is in the form of a channel having a U-shaped cross-section.

10. The package of claim 9, wherein said channel is curved to accommodate a curved needle.

11. The package of claim 9, wherein said object support surface includes a plurality of channels with a U-shaped cross section, each of said channels accommodating at least one of the pointed objects.

12. The package of claim 2, wherein a clearance exists between said tray, said cover and said point guard, such that a range of differently dimensioned pointed objects can be contained in said package.

13. The package of claim 2, wherein said cover has object restraint projections projecting downwards in the same general direction as said point guard, said object restraint projections protruding into said channel to constrain the motion of the pointed object contained therein.

14. The package of claim 2, wherein said tray portion has a peripheral ledge to accommodate said cover, said cover having a peripheral shape that is complementary to the peripheral shape of said tray portion.

15. The package of claim 2, wherein said tray portion is of a thermoformed blister-type construction.

16. The package of claim 15, wherein said cover and said point guard are of thermoformed blister-type construction.

17. A package for a pointed object, comprising: (a) a tray portion having an

internal hollow to receive the pointed object; (b) removable lid means, loosely fitting over said internal hollow of said tray portion and having means for preventing the pointed object from penetrating said tray portion depending therefrom; (c) object positioning means for positioning the pointed object relative to said preventing means; and (d) removable cover means for retaining the pointed object, said lid means and said preventing means being positioned on said tray with said preventing means in juxtaposition relative to the pointed object, said tray portion and said lid means being of thermoformed blister-type construction and wherein said tray portion, said lid means and said preventing means being dimensioned relative to one another such that the pointed object may have a range of dimensions.

US5899909A

Total Assignments: 2

Patent #: 5899909 **Issue Dt:** 05/04/1999 **Application #:** 08804680 **Filing Dt:** 02/25/1997

Inventors: JAN CLAREN, ULF ULMSTEN

Title: SURGICAL INSTRUMENT FOR TREATING FEMALE URINARY INCONTINENCE

Assignment: 1

Reel/Frame: 008493/0422 **Recorded:** 04/25/1997 **Pages:** 6

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

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ULMSTEN, ULF **Exec Dt:** 03/14/1997

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Assignment: 2

Reel/Frame: 010461/0870 **Recorded:** 12/13/1999 **Pages:** 5

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

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US6491703B1

Total Assignments: 2

Patent #: 6491703 **Issue Dt:** 12/10/2002 **Application #:** 09051311 **Filing Dt:** 07/27/1998

Inventor: ULF ULMSTEN

Title: SURGICAL INSTRUMENT FOR TREATING FEMALE URINARY INCONTINENCE

Assignment: 1

Reel/Frame: 009344/0426 **Recorded:** 07/22/1998 **Pages:** 2

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignor: ULMSTEN, ULF **Exec Dt:** 07/07/1998

Assignee: MEDSCAND MEDICAL AB
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Assignment: 2

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Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Assignor: MEDSCAND MEDICAL AB **Exec Dt:** 11/10/1999

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